

2. Program Design

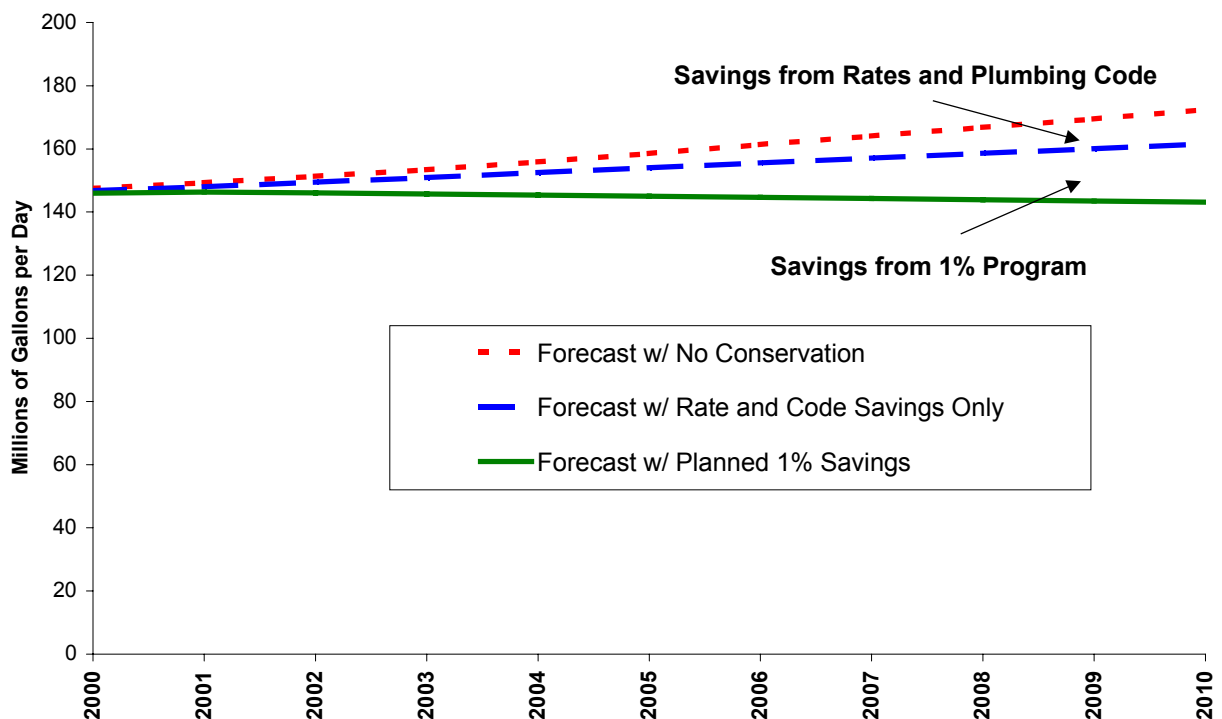
Regional 1% Program and 10-year Goal

The Saving Water Partnership is committed to an ambitious effort to reduce per capita water use in the regional service area by 1% every year through 2010. To accomplish the ten-year goal, local water providers will reduce per capita water use by about 1% each year for the next ten years. More detailed strategies and goals for the 10-year program and beyond are presented in the *Ten Year Water Conservation Program Plan*⁶.

Chart 2 shows forecasted water demand (retail plus wholesale): 1) with no conservation; 2) with conservation savings from water rates and plumbing codes only; and, 3) with conservation savings from the 1% Program. Savings from rates and plumbing codes are expected to reach 11 MGD by 2010, and savings from the 1% Program will achieve an additional 18 MGD by 2010.

This report is focussed on the performance of the 1% Program. The conservation savings shown below from rates and code are those that would be achieved without the 1% Program efforts. Unless otherwise stated, all references to conservation in this report are to those arising from the 1% Program.

Chart 2: Water Demand and Conservation



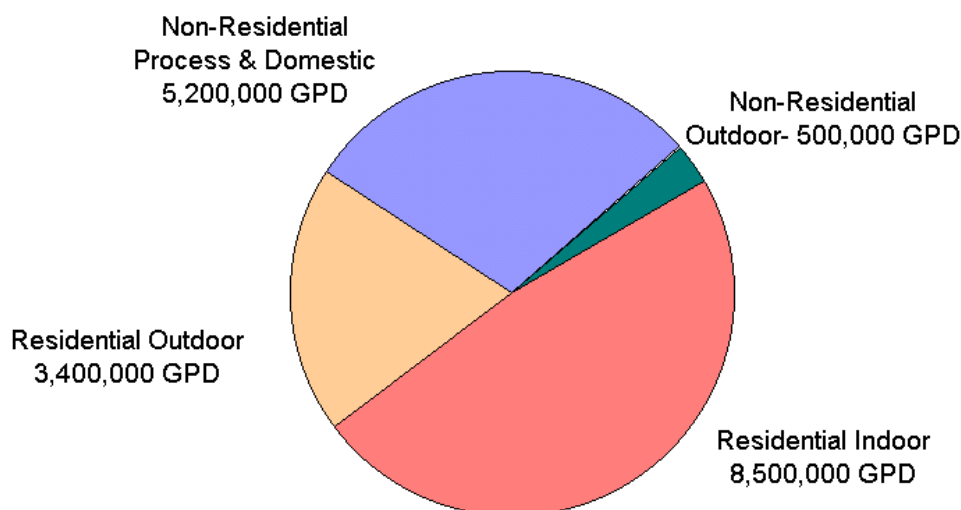
In 1998, SPU completed a water Conservation Potential Assessment⁷ (CPA). The CPA provides a rigorous analysis of the cost, volume, and reliability of conservation opportunities available within Seattle's wholesale and direct service areas through 2020. The CPA found that substantial water savings, up to 31 MGD or 16% of water use in the peak season, could be

achieved over the next 20 years with no reduction in customers' ability to use water or their satisfaction with water services.

The cost of these savings is less than the cost of new peak season water supply as described in the SPU *2001 Water System Plan Update*⁸. The 1% Program implements cost-effective conservation identified in the CPA over the next ten years. Chart 3 shows how the savings targets are to be achieved by various customer sectors.

Chart 3: 2010 Savings Targets by Sector*

Total Savings -- 18 Million Gallons Per Day



* Umbrella or schools elements are considered drivers for other elements and do not have savings targets tied directly to them.

The conservation savings will result from an improvement in water use efficiency in the residential, commercial, industrial, institutional and landscape sectors. The 1% Program will rely on conservation programs to improve customer water use efficiency through a strategy that integrates information, education, incentives, rates, codes and regulations.

10-Year Measures and Strategies

Supported by public information and education, programs promoting and encouraging the use of efficient water-using equipment, behavior, and technology are the backbone of the 1% Program conservation strategy. Overall conservation messaging and outreach supports specific targeted program elements.

Since the early 1990's, the SWP has designed and successfully conducted several ongoing targeted programs. The success of these programs during the 1990's is quantified in Section 4. These programs are being continued and expanded, including: Water Smart Technology commercial incentives, Water Efficient Irrigation Program for commercial customers, WashWise

water-efficient washing machine rebates for residential customers, and Natural Lawn & Garden techniques for residential landscapes. In addition, new targeted hardware and behavior programs have been designed and are being implemented for residential landscape and residential indoor uses. These new programs are discussed in more detail in Section 3.

The initial years will concentrate on getting additional savings from the expansion of ongoing programs, and gearing up implementation of new programs. Later years will reap savings from new programs as well as continued savings from ongoing program elements. Major savings will come from residential domestic use programs, more efficient residential landscaping, and commercial/ industrial cooling and process improvements. Table 4 below shows where specific savings will come from and how the programs will achieve them.

For further information on the long-term conservation plans, see the *Ten Year Water Conservation Program Plan*⁹,

Table 4: 10-year Program Measures and Strategies

Sector	Types of Measures	Types of Strategies
Residential Indoor Save: 8.5 MGD by 2010 =7% of residential indoor use	<ul style="list-style-type: none"> Replace toilets, faucets, showers (single family & multifamily) Fix leaks Change behaviors (flushes, faucet use, showers, full loads) 	<ul style="list-style-type: none"> Rebates and promotion to accelerate code replacement Behavior messaging
Residential Landscape Save: 3.4 MGD by 2010 =20% of residential landscape use	<ul style="list-style-type: none"> Reduce lawn watering Improve Irrigation performance Change lawn & garden practices 	<ul style="list-style-type: none"> Direct & indirect media outreach Technical materials Irrigation efficiency
Commercial/process/domestic Save: 5.2 MGD by 2010 =10% of commercial/process/domestic	<ul style="list-style-type: none"> Upgrade toilets and equipment for cooling, process other uses Improve cooling performance 	<ul style="list-style-type: none"> Technical assistance Financial incentives
Commercial Landscape Save: 0.5 MGD by 2010 =11% of commercial landscape	<ul style="list-style-type: none"> Upgrade equipment (irrigation controls) Improve scheduling & maintenance 	<ul style="list-style-type: none"> Assessments and technical assistance Financial incentives

Supporting Elements

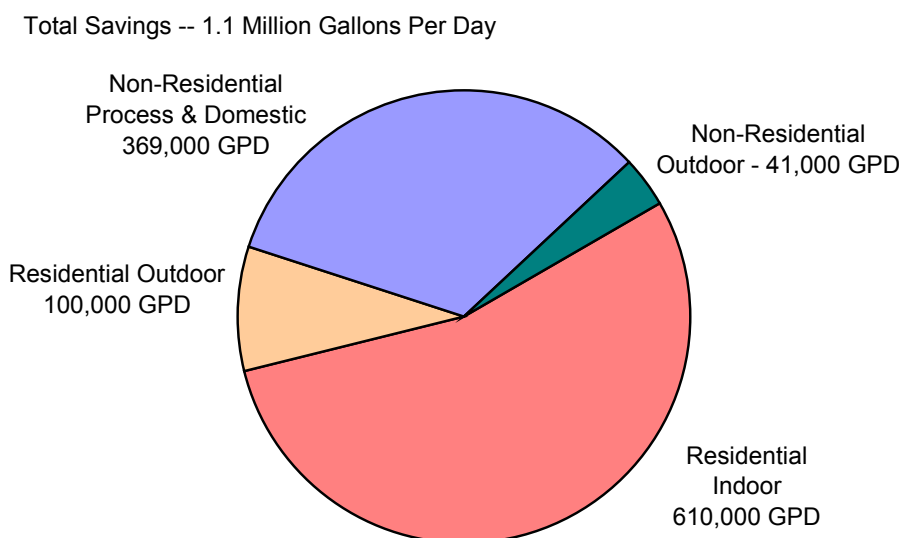
Sector	Types of Measures	Types of Strategies
Youth Education Supports savings in other sectors	<ul style="list-style-type: none"> Conservation awareness and residential measures 	<ul style="list-style-type: none"> Educator training and resources Classroom and take-home materials Watershed tours
Overall Messaging Supports savings in other sectors	<ul style="list-style-type: none"> Conservation awareness and residential and commercial measures 	<ul style="list-style-type: none"> Targeted marketing

2002 Program and Goals

Due to budget constraints, an overall savings target of 1.1 MGD was set for 2002, which is less than the 2001 target of 1.3 MGD. For all sectors, new conservation efforts fell into two categories: 1) hardware incentives – primarily financial incentives to replace fixtures or equipment, also including accelerated fixtures (beyond rates and code) that were upgraded without rebates; and 2) behavioral incentives and outreach - assistance to change behaviors or upgrade equipment, usually without financial incentives. This year, established incentive programs were intended to build on past success, while new residential indoor and residential and commercial landscape incentives were introduced, and other assistance and outreach programs were expanded.

Chart 4 shows the 2002 savings targets planned for various customer sectors.

Chart 4: 2002 Savings Targets by Sector*



* Umbrella or schools elements are considered drivers for other elements and do not have savings targets tied directly to them.

2002 Measures and Strategies

The residential indoor sector expanded multifamily toilet rebates from a small-scale program begun in 2001 to a full-scale effort. This sector also initiated a tiered clothes washer rebate, implementing a special promotion that offered higher rebates for the most efficient machines. The residential outdoor sector partnered with nurseries on a soaker hose rebate offer and distribution of new educational guides. This sector also partnered with retailers for the month of April to increase sales of natural yard care products, and for the month of September to promote the use of compost. In the commercial sector a series of workshops generated interest in efficient technologies, collaboration with public agencies and trade organizations increased, and

outreach efforts were targeted to specific commercial business categories such as medical facilities and schools.

Table 5: 2002 Measures and Strategies

Types of Measures		Types of Strategies	
RESIDENTIAL INDOOR (2002 Target = 0.61 MGD)			
<ul style="list-style-type: none">▪ Replace washing machines▪ Replace toilets & faucets (single family & multifamily)▪ Fix leaks▪ Change behaviors (flushes, faucet use, shower time, full loads)		<ul style="list-style-type: none">▪ WashWise rebates▪ Recruit multifamily owners▪ Behavior messaging▪ Collaboration with energy utilities▪ Promotion through media, mailing▪ Distribution of results of <i>Toilet Performance Testing</i>¹⁰ conducted by the National Association of Homebuilders Research Center	
RESIDENTIAL LANDSCAPE (2002 Target = 0.1 MGD)			
<ul style="list-style-type: none">▪ Improve watering efficiency<ul style="list-style-type: none">➢ Irrigation system performance➢ Landscape watering behaviors➢ Practices that affect watering (e.g. mulch and soil prep)		<ul style="list-style-type: none">▪ Media promotions▪ Regional sales event▪ Retailer partnerships (nurseries and home and garden centers)▪ Technical materials▪ Target high peak users▪ Personal Water Use Assessment pilot program	
COMMERCIAL PROCESS/DOMESTIC (2002 Target = 0.37 MGD)			
<ul style="list-style-type: none">▪ Upgrade toilets and equipment for cooling, process other uses▪ Improve cooling performance		<ul style="list-style-type: none">▪ Technical assistance, assessments, workshops▪ Financial incentives (custom projects and set rebates)▪ Targeted promotion through vendors, trade groups, agencies▪ Recruit large customers	
COMMERCIAL LANDSCAPE (2002 Target = 0.04 MGD)			
<ul style="list-style-type: none">▪ Upgrade irrigation equipment (controls, rain sensors, drip)▪ Improve scheduling & maintenance		<ul style="list-style-type: none">▪ Assessments, workshops and technical assistance▪ Financial incentives (custom projects and set rebates)▪ Targeted recruiting and promotion	

Supporting Elements

Types of Measures		Types of Strategies	
YOUTH EDUCATION		(Supports savings in other sectors)	
<ul style="list-style-type: none">Conservation awareness and residential measures	<ul style="list-style-type: none">Educator training and resourcesClassroom and take-home materialsEducational TV PSA for kids		
OVERALL MESSAGING		(Supports savings in other sectors)	
<ul style="list-style-type: none">Conservation awareness and residential and commercial measures	<ul style="list-style-type: none">Targeted marketingCollaboration with Puget Sound regional water utilities		

End Notes

⁶ Ten Year Conservation Program Plan, Seattle Public Utilities, 2002, www.cityofseattle.net/util/RESCONS/papers/tenyearplan.pdf.

⁷ Conservation Potential Assessment, Seattle Public Utilities, 1998, <http://www.ci.seattle.wa.us/util/RESCONS/CPA/default.htm>.

⁸ 2001 Water System Plan Update, Seattle Public Utilities, 2001, <http://www.ci.seattle.wa.us/util/watersystemplan/default.htm>

⁹ Ten Year Conservation Program Plan, Seattle Public Utilities, 2002, www.cityofseattle.net/util/RESCONS/papers/tenyearplan.pdf.

¹⁰ Water Closet Performance Testing, National Association of Homebuilders Research Center, September, 2002, <http://www.savingwater.org/toilettest.htm>.